

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the claim amendments and following remarks. By virtue of the amendment, claims 1-8 and 10-31 are pending in the present application of which claims 1, 6, 10, 16, 19-21, 30 and 31 are independent. Claim 9 has been canceled. Claims 1, 3, 4, 6, 8, 10, 16 and 18-20 have been amended. Claims 21-31 are new. No new matter has been added.

The Examiner indicated that claims 6, 10, 11, 19 and 20 contained allowable subject matter and would be allowable if rewritten in independent form. Claims 6, 10 and 19-20 were each rewritten to be in independent form. Claim 11 depends from independent claim 10, which is now allowable.

Claims 1-5, 7-9 and 12-18 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S Patent No. 6,125,095 to Gemma et al. ("Gemma").

Claim Rejection under 35 U.S.C. § 102

The Official Action sets forth a rejection of claims 1-5, 7-9 and 12-18 under 35 USC 102 (b) as being allegedly anticipated by Gemma. This rejection is traversed.

Gemma does not anticipate the subject matter of independent claims 1 and 16. Specifically, Gemma does not disclose "a nanometer-scaled data bit including an opening extending through a portion of the second layer," as now recited in claim 1 or "writing a nanometer-scaled data bit including an opening in the second layer by bombarding the storage medium with a high-power-density beam," as now recited in claim 16.

Gemma discloses "luminescent recording layer holding a plurality of positive or negative charges." As disclosed in Gemma, "information is recorded by injecting electric charge into a charge holding region made from a donor or acceptor." See Abstract. Thus,

Gemma does not disclose “a nanometer-scaled data bit including an opening extending through a portion of the second layer,” as recited in claim 1 or “writing a nanometer-scaled data bit including an opening in the second layer by bombarding the storage medium with a high-power-density beam,” as recited in claim 16.

Therefore, independent claims 1 and 16, and their dependent claims, 2, 5, 7, 12-15 and 17 are allowable over Gemma. Claims 3, 4 and 8 now depend from allowed claim 6. Claim 18 has been amended to depend from new claim 30, which contains subject matter pointed out as allowable by the Examiner, as discussed below.

The Examiner recites Gemma discloses features of dependent claims 2-5, 7-8, 12-15 and 17-18. Although Applicant disagrees with Examiner’s characterization of the features of dependent claims 2-5, 7-8, 12-15 and 17-18, Applicant reserves the right to pursue such arguments at a later date.

Newly Added Claims

Claims 21-30 are newly added and include features not taught or suggested by the prior art, and thus these claims are also believed to be allowable. In particular, independent claim 21 recites features similar to independent claim 16. Independent claim 21 recites, “means for writing a nanometer-scaled data bit including an opening in the second layer by bombarding the storage medium with a high-power-density beam.” This feature is not taught or suggested by the prior art as described above.

Also, new claim 30 recites subject matter that the Examiner indicated to be allowable in the Office Action. Independent claim 30 recites the step of “providing a data storage medium that includes a first layer at a surface of the storage medium and a second layer between the first layer and a third layer, the second layer including a first region that includes

a phase-change material and a second region that includes a resistive material with a resistivity value midway between the resistivity value of a first phase of the phase-change material and a second phase of the phase-change material.”

New claim 31 recites features similar to independent claim 30. Independent claim 31 recites “means for providing a data storage medium that includes a first layer at a surface of the storage medium and a second layer between the first layer and a third layer, the second layer including a first region that includes a phase-change material and a second region that includes a resistive material with a resistivity value midway between the resistivity value of a first phase of the phase-change material and a second phase of the phase-change material.”

This feature was indicated to be allowable by the Examiner in the Office Action.

PATENT

Atty Docket No.: 10003489-1

App. Ser. No.: 09/984,419

Conclusion

In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited.

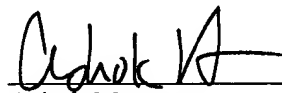
Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below. Please grant any required extensions of time and charge any fees due in connection with this request to deposit account no. 08-2025.

Respectfully submitted,

Gary A. Gibson

Dated: June 25, 2004

By



Ashok Mannava
Registration No.45,301

Paramita Ghosh
Registration No.42,806

MANNAVA & KANG, P.C.
2930 Langdon Gate Drive
Fairfax, VA 22031
(703) 628-1461
(703) 991-1162 (facsimile)